UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,343	01/07/2005	Karl-Heinz Grosse-Brinkhaus	PAT-98897	1864

26922 7590 08/23/2005

BASF CORPORATION
ANNE GERRY SABOURIN
26701 TELEGRAPH ROAD
SOUTHFIELD, MI 48034-2442

EXAMINER	
SANDERS, KRIELLION ANTIONETTE	

ART UNIT	PAPER NUMBER
1714	

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/521,343	GROSSE-BRINKHAUS ET AL.	
	Examiner	Art Unit	
	Kriellion A. Sanders	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☒ Claim(s) *18* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *1/7/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 18 provides for the use of an electrocoat mateial, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 18 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd.* v. *Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5 and 9-16 are rejected under 35 USC 102(b) as being anticipated or in the alternative as being obvious over Kato et al, US Patent No. 6,333,367, Sikora, US Patent No. 6,156,823 and Bossert et al, US Patent No. 6,124,380.

Kato et al discloses a cationic electrodeposition coating composition containing (A) an acrylic resin obtained by subjecting a mixture of 10 to 60% by weight of a hydroxyl group-containing acrylic monomer (a), 5 to 35% by weight of an amino group-containing acrylic monomer (b), 5 to 55% by weight of an aromatic vinyl monomer (c) and optionally another acrylic monomer (d) to a radical copolymerization reaction; (B) a hydroxyl group-containing acrylic resin-modified epoxy resin obtained by reacting 65 to 95% by weight of a resin composition consisting of 10 to 90% by weight of an epoxy resin (e) and 90 to 10% by weight of a hydroxyl group-containing acrylic resin (f) with 5 to 35% by weight of an amine compound (g); (C) a aliphatic and/or alicyclic ***blocked polyisocyanate*** compound, and (D) a ***bismuth*** compound component, a mixing ratio of the components (A), (B) and (C) being such that the component (A) is in the range of 40 to 90% by weight, the component (B) is in the range of 5 to 55% by weight and the component (C) is in the range of 5 to 40% by weight based on a total weight of solid contents in the components (A), (B) and (C), the component (D) being contained

in such an amount as to be in the range of 0.01 to 10 parts by weight as a ***bismuth*** content per 100 parts by weight of a resin solid content in the electrodeposition coating composition. The ***blocked polyisocyanate*** compound (C) used as a ***curing agent*** in the present invention is a compound prepared by blocking an aliphatic and/or alicyclic polyisocyanate compound with a blocking agent. The ***bismuth*** compound used in the ***bismuth*** compound component (D) may include ***bismuth*** oxide, ***bismuth*** hydroxide, basic ***bismuth*** carbonate, ***bismuth*** nitrate, ***bismuth*** benzoate, ***bismuth*** citrate, ***bismuth*** silicate and the like. The ***bismuth*** compound component (D) used in the present invention may preferably include an aqueous organic acid-***bismuth*** salt solution prepared by reacting the above ***bismuth*** compounds with at least two organic acids, at least one of which is an aliphatic hydroxycarboxylic acid, in water. Examples of the aliphatic hydroxycarboxylic acid used in the preparation of the aqueous organic acid-***bismuth*** salt solution may include glycolic acid, glycerinic acid, lactic acid, dimethylol propionic acid, dimethylol butyric acid, dimethylol valeric acid, tartaric acid, malic acid, hydroxymalonic acid, dihydroxysuccinic acid, trihydroxysuccinic acid, methylmalonic acid and the like. Of these, monocarboxylic acids are useful, lactic acid being particularly preferable. These may be used alone or in combination. In addition to the above components (A), (B), (C) and (D), the cationic electrodeposition coating composition of the present invention may optionally contain color pigments, anticorrosive pigments, extender pigments, dyes, additives and the like, and may include clear coating compositions free of pigments.

The color pigment may include inorganic pigments such as titanium oxide, carbon black, iron oxide, lead chromate and the like; and organic pigments such as Anilin Black, Vermillion Red, Lake Red, Phthalocyanine blue, Fast Sky Blue and the like. Anticorrosive pigments may

include basic lead silicate and the like. Extender pigments may include kaolin, barium sulfate and the like. See col. 1, line 66 through col. 8, line 54.

The patented invention indicates that the ***blocked polyisocyanate*** compound (C) is used as a ***curing agent*** as opposed to a crosslinking agent. However the curing mechanism in this art is considered to be analogous to crosslinking. This is documented in the art. See for instance the patent to Sikora et al, below.

Sikora et al discloses an improved aqueous cathodic electrocoating composition having a binder of an epoxy-amine adduct and a ***blocked polyisocyanate crosslinking agent***; wherein the improvement is the use of a catalytic amount of ***bismuth*** trioxide dispersed in the electrocoating composition. The electrocoating composition also contains pigment which is incorporated into the composition in the form of a pigment paste. The pigment paste is prepared by grinding or dispersing a pigment into a grinding vehicle with the ***bismuth*** trioxide catalyst and other optional ingredients such as anticratering agents wetting agents, surfactants, and defoamers. Optionally, plasticizers can be used to promote flow. Examples of useful plasticizers are high boiling water immiscible materials such as ethylene or propylene oxide adducts of nonyl phenols or bisphenol See col. 2, line 23 through col. 4, line 44.

Bossart et al discloses a curable composition comprising: (i) a blocked reactive ***isocyanate***; (ii) a functional compound reactive with the blocked reactive component, which contains reactive hydrogen; (iii) a catalyst for promoting the reaction of the reactive component with the blocked functional compound, wherein said catalyst is based on the reaction product of manganese, cobalt, nickel, copper, zinc, germanium, antimony, or ***bismuth,*** or the oxides thereof with a mercaptan, or an organic acid, wherein said organic acid is hexanoic, oxalic, adipic, lactic,

tartaric, salicylic, thioglycolic, succinic, or mercapto succinic acid, or the reaction product of copper or germanium, or the oxides thereof with a lower aliphatic acid. Optionally, other compounds may be used to promote the reaction, especially compounds based on tin, preferably organotin compounds. Water soluble catalysts are preferred. The coating composition can be ***electrocoated*** on a conductive substrate and cured. See col. 4, line 51 through col, 15, line 67.

Claims 1-2 are rejected under 35 USC 102(b) as being anticipated or in the alternative as being obvious over McMurdie et al, US Patent No. 5,972,189.

McMurdie et al discloses an electrodepositable composition comprising (a) an active hydrogen-containing, cationic salt group-containing resin electrodepositable on a cathode; (b) a capped polyisocyanate curing agent; and (c) ***bismuth*** diorganodithiocarbamate. Patentee found ***bismuth*** diorganodithiocarbamate to be more effective than the conventional ***bismuth*** trioxide or ***bismuth*** lactate. See col.2, line 24 through col. 13, line 18.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 6-8 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al, US Patent No. 6,333,367, Sikora, US Patent No. 6,156,823 and Bossert et al, US Patent No. 6,124,380as applied to claims 1-5 and 9-16 above and further in view of the following remarks.

3. Since the patents indicate that bismuth carboxylates may be used the selection of any species of bismuth carboxylate would have been obvious to one of ordinary skill in the art at the time of applicant's invention, absent a clear showing of unexpected results attributable to that particular species. Therefore, the use of bismuth ethylhexanoate or bismuth subsalicylate would have been obvious to the ordinary practitioner of this art.

There is no novelty in forming a bonded structure wherein an adhesive sheet is stuck fast to a substrate coated with the patented ***polycarbonate polyurethane*** resins. The adherence of tape or a similar bonding adhesive to a painted wall or plastic counter (containing a plasticizer) would meet this limitation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kriellion A. Sanders whose telephone number is 571-272-1122. The examiner can normally be reached on Monday through Thursday 6:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kriellion A. Sanders
Primary Examiner
Art Unit 1714

ks